account are all that we should permit ourselves to mention. All else involves assumptions of the kind which these would-be purists, such as Karl Pearson, like to brand and condemn as metaphysical. The justification of such assumptions is pragmatic. We find they are justified because they work, because they guide us, in the main, aright to our practical goals when we use them as working hypotheses.

The conception or category of causation is justified in similar pragmatic fashion, and it is equally indispensable for science. Some branches of science, it is true, have long remained in the merely descriptive and classificatory stage. The whole of biology had hardly risen appreciably above that stage before the very modern period, Descartes' speculative suggestions towards a mechanical physiology were among the earliest attempts to raise it to the explanatory level by the making of causal dynamic hypotheses.

The chief factor in raising biology above the level of mere description and classification has been the theory of evolution. That there were various degrees of resemblance between species had long been obvious. The rejector of explanation, if he accepts evolution as having taken place, is bound to the view that organic evolution means no more than that, if we had a complete history of the world of life, we should be able to describe the successive appearance of different forms, the immediately succeeding forms differing but slightly from one another. He could not validly postulate any causal

relation between descendants and ancestors, between child and parent. For him the general truth that offspring resemble their parents and their forbears must remain a bare empirical generalization, of which nothing more can be said after